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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,696	12/30/1999	DARRYL L. DEFREESE	A-6307	6730

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SCIENTIFIC-ATLANTA, INC.  
INTELLECTUAL PROPERTY DEPARTMENT  
5030 SUGARLOAF PARKWAY  
LAWRENCEVILLE, GA 30044

EXAMINER

PICH, PONNOREAY

ART UNIT PAPER NUMBER

2135

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/475,696

Applicant(s)

DEFREESE ET AL.

Examiner

Ponnoreay Pich

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 72-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 72-84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

In response to an election/restriction requirement, applicant elected group I (claims 72-84) without traverse. Applicant's arguments with regards to these claims were fully considered, but are moot in view of new grounds of rejections presented below. Claims 72-84 are pending.

#### ***Claim Objections***

Claim 72 is objected to because of the following informalities: "the" located in line 10 before "a user" should be deleted. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 72-82 and 84 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

1. The method of claim 72 is not statutory because it does not produce a concrete, useful, and tangible result. Note that in following the steps of the recited claim, the terminal has been provided with all the information it needs to make a decision of whether or not to authorize access to a given service. Then, in the last step of the claim, a decision is made as to whether or not to authorize the terminal to access a given service. However, there is no step recited which shows the result of the decision being carried out which would provide the

terminal with services. As such, the claim does not produce a concrete, useful, and tangible result.

2. Claims 73-78 are dependent on claim 72 and also do not recite any steps which produces a concrete, useful, and tangible result.
3. Claim 79 is also a method claim which does not produce a concrete, useful, and tangible result, thus is not statutory. By the final step of the method, a determination is made whether the terminal is authorized to access a given service. However, the claim does not recite any step which acts upon the decision which would provide service to the terminal, thus no concrete, useful, and tangible result is produced by the steps of claim 79.
4. Claims 80-82 and 84 are dependent on claim 79 and the limitations recited therein also do not produce any concrete, useful, and tangible result. Note that claim 83 is statutory because responsive to the decision made in claim 79, the terminal receives service and service is displayed, thus a practical application has been accomplished by the claimed method.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 72, 74-76, 79, and 81 are rejected under 35 U.S.C. 102(e) as being anticipated by Urakoshi et al (US 6,067,564).

**Claim 72:**

Urakoshi discloses:

1. Associating services with entitlement unit numbers, an entitlement unit number corresponding to a particular package of bundled services (Fig 11, item 111; col 5, lines 3-13; and col 7, lines 40-42).
2. Providing the terminal with an electronic program guide that associates universal service identification numbers to services (Fig 2; Fig 12; and col 8, lines 49-55).
3. Providing the terminal with an authorized entitlement unit table that translates universal service identification numbers to entitlement unit numbers (Fig 1, item 111 and Fig 16-17).
4. Providing the terminal with an authorized entitlement unit number (Fig 3 and col 4, lines 3-16), wherein responsive to the a user selecting a given service, the terminal determines whether the terminal is authorized to access the given service using the electronic program guide, the entitlement unit table, and the authorized entitlement unit number (Fig 5 and col 5, lines 3-49).

The examiner interprets an entitlement unit number as any number corresponding to a particular package of bundled services as is defined in the claim. In

Figure 11, item 111 shows several numbers which can fit this definition including data number, channel number, start time, ending time, and price.

**Claim 74:**

Urakoshi further discloses wherein a given entitlement unit number is associated with a plurality of services (Fig 5 and col 5, lines 3-49). A user's monthly charge limit can be used on any number of services.

**Claim 75:**

Urakoshi further discloses wherein the terminal is authorized for a first group of services, the first group of services having a first entitlement unit number (Fig 3 and col 4, lines 3-24), and further including the step of: providing the terminal with a second authorized entitlement unit number, wherein the second authorized entitlement unit number is associated with a second group of services (Fig 3 and col 4, lines 3-24).

Multiple users have their own account on the terminal and each have their own authorized entitlement unit number, i.e. monthly budget. Each person can use their budget as they like to purchase whichever show they like.

**Claim 76:**

The limitation of wherein the given service is associated with both the first authorized entitlement unit number and the second authorized unit number is inherent to Urakoshi's invention. More than one person is able to purchase the same service/program. As the first and second authorized unit numbers are the monthly budgets of a first and second user of Urakoshi's terminal, the given service is

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associated with both numbers as both a first and second user can use their monthly budget to purchase the given service.

**Claim 79:**

Urakoshi discloses:

1. Receiving an electronic program guide that associates universal service identification numbers to services (col 3, lines 35-50).
2. Receiving an entitlement unit table that translates universal service identification numbers to entitlement unit numbers, an entitlement unit number corresponding to a particular package of bundled services (Fig 1, item 111; Fig 16-17; and col 8, lines 15-24).
3. Receiving an authorized entitlement number (Fig 3 and col 4, lines 3-16).
4. Receiving user input for a given service (col 5, lines 3-13 and col 7, lines 12-15).
5. Determining whether the terminal is authorized to access the given service using the electronic program guide, the entitlement unit table, and the authorized entitlement unit number (Fig 5 and col 5, lines 3-49).

**Claim 81:**

Urakoshi further discloses storing the authorized entitlement unit number in a memory (col 4, lines 25-41).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 73, 80, 77-78, and 83-84 rejected under 35 U.S.C. 103(a) as being unpatentable over Urakoshi et al (US 6,067,564) in view of Wasilewski (US 5,420,866).

**Claims 73 and 80:**

Urakoshi does not explicitly disclose wherein the authorized entitlement unit number is provided to the terminal in an entitlement management message (EMM). However, Wasilewski discloses transmitting information for controlling access to different programs or tiers of programs to a terminal via an entitlement management message (col 4, line 55-col 5, line 12). How much a user has to pay to access a given program is information for controlling access to different programs or tiers of programs.

At the time applicant's invention was made, it would have been obvious to one skilled in the art to modify Urakoshi's invention according to the limitations recited in claim 73 in light of Wasilewski's teachings. One skilled would have been motivated to do so because Wasilewski discloses that EMM's were well known in the art at the time applicant's invention was made and that it was decided by the a committee that program access information should be transmitted to a terminal via EMM's.

**Claim 77:**

As per claim 77, Urakoshi discloses the terminal confirms that the terminal is authorized to access the given service using an entitlement unit number and the authorized entitlement unit number (Fig 5 and col 5, lines 3-49). Urakoshi does not explicitly disclose:



1. Providing the services in a stream of packets.
2. Multiplexing entitlement control messages for a given service into the stream of packets, wherein each entitlement control message includes a second entitlement unit number and the second entitlement unit number is used to determine if the terminal is authorized to access the given service.

However, Wasilewski discloses providing the services in a stream of packets (Fig 2). Wasilewski further discloses multiplexing entitlement control messages (ECM's) for a given service into the stream of packets (Fig 3B and 7A), wherein each entitlement control message includes a second entitlement unit number and the second entitlement unit number is used to determine if the terminal is authorized to access the given service (col 3, lines 7-12 and col 14, lines 5-44). At the time applicant's invention was made, it would have been obvious to one skilled in the art in light of Wasilewski's teachings to modify Urakoshi's invention according to the limitations recited in claim 77. One skilled in the art would have been motivated to do so because cable systems based on MPEG streams were commonly used at the time applicant's invention was made and incorporating Wasilewski's teachings would allow Urakoshi's terminal to be used with MPEG based cable systems. Note that Urakoshi discloses his invention processes MPEG signals sent from a service provider (col 3, lines 15-26).

**Claim 78:**

Urakoshi discloses a plurality of entitlement unit numbers (Fig 11, item 111). Urakoshi does not explicitly disclose the plurality of entitlement unit numbers is included

in entitlement control messages. However, Wasilewski discloses that the MPEG-2 Systems standard does not specify the format of an ECM. It would have been obvious to one skilled in the art to include the plurality of entitlement unit numbers in entitlement control messages. One skilled would have been motivated to do so because as the format of an ECM is not specified, ECM's are flexible enough to carry any type of data that might be needed.

**Claim 83:**

Urakoshi further discloses responsive to determining that the terminal is authorized to access the given service, further includes the step of confirming that the terminal is authorized to access the given service based upon the entitlement unit number and the authorized entitlement unit number (col 5, lines 3-49).

Urakoshi does not disclose the following limitations which are disclosed by Wasilewski:

1. Receiving a stream of packets, the streams of packets including packets comprising the given service and entitlement control messages (ECMs) for the given service (Fig 6 and col 13, lines 41-43, and col 14, lines 5-9).
2. Responsive to determining that the terminal is authorized to access the given service, further including the steps of:
  - a. Parsing ECMs for the given service from the stream of packets (col 14, lines 5-9).
  - b. Responsive to confirming that the terminal is authorized further including the steps of:

- i. Recovering control words from the received ECM's (col 9, lines 41-47 and col 15, lines 6-14).
- ii. Decrypting the given service using the recovered control words (col 9, lines 41-47 and col 15, lines 6-14).
- iii. Displaying the given service (col 15, lines 6-14).

Wasilewski also does not explicitly disclose wherein each ECM includes an entitlement unit number that is carried in the payload of the ECM. However, Wasilewski discloses that the MPEG-2 Systems standard does not specify the format of an ECM. It would have been obvious to one skilled in the art to include an entitlement unit number in each entitlement control message. One skilled would have been motivated to do so because as the format of an ECM is not specified, ECM's are flexible enough to carry any type of data that might be needed.

**Claim 84:**

As per the limitation wherein the entitlement control message includes a plurality of entitlement unit numbers, it is similar to the limitation recited in claim 78 and is rejected for the same reasons. Urakoshi further discloses the step of confirming that the terminal is authorized to access the given service further includes the step of: comparing each of the entitlement unit numbers with the authorized entitlement unit number until one of the entitlement unit numbers matches the authorized entitlement unit number, wherein the terminal is authorized to access the given service if there is a match (col 8, lines 42-55).

Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Urakoshi et al (US 6,067,564) in view of Chaney (US 6,035,037).

**Claim 82:**

Urakoshi does not explicitly disclose wherein the memory is included in a secure microprocessor having input/output terminals, and the secure microprocessor is characterized by the memory being observable at the input/output terminals. However, Chaney discloses the memory is included in a secure microprocessor having input/output terminals (Fig 4 and col 6, lines 56-59) and the secure microprocessor is characterized by the memory being unobservable at the input/output terminal (col 9, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Urakoshi's invention with Chaney's teachings according to the limitations recited in claim 82. One of ordinary skill would have been motivated to do so as Chaney discloses it would ensure that unauthorized users do not access entitlement data (col 9, lines 1-4).

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ponnoreay Pich  
Examiner  
Art Unit 2135

  
HOSUK SONG  
PRIMARY EXAMINER

PP